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### SAFETY TETHER

#### **RELATED APPLICATIONS**

The present application claims the benefit, under 35 U.S.C. Section 119(e), of US provisional application No. 60/421,575 filed October 28, 2002, the disclosure of which is incorporated herein by reference.

## FIELD OF THE INVENTION

The present invention relates to a safety tether.

## **BACKGROUND OF THE INVENTION**

Keeping a child accessory, for example, a bottle, pacifier or rattle, in proximity to a child without an adult continually holding onto the accessory, is desirable for feeding and quieting a child. Further, children are prone to drop accessories, sometimes inadvertently, during movement. It is therefore desirable to connect the accessory to an anchor, such as a strut on a child carriage, car seat and/or a feeding chair, for example, using a tether. Use of a tether can prevent the accessory from falling and becoming soiled, broken and/or lost. A tether can also be used, for example, for allowing a child and/or animal to roam around a specified area.

To be safe for use in proximity to a child, the tether should allow freedom of movement without danger of entanglement. A tether that is more than several inches in length, presents a choking danger should it become enwrapped around the throat of a child or animal. Alternatively it could pose a circulatory danger should it become enwrapped around an extremity.

Pollak et al. in US 5,082,220, disclose a resilient, coiled strap that is impractical because its resilience serves to pull an accessory away from the child during use.

Dachtler, in US 4,296,902, discloses a frame that attaches around a baby's neck to hold a baby bottle in position during unattended baby feeding. The use of this frame, however, poses a danger of a weighty baby bottle dropping on the baby's head or an entanglement problem should the neck attachment become twisted.

Hellhake, US 4,946,119, discloses a long child accessory strap that fails to protect the child from entanglement problems.

Winger, US 4,700,408 discloses an accessory strap that forms a loop around an infant's neck at one end and attaches to a pacifier at the other end, posing an entanglement problem should the neck loop twist around the baby's neck.

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Huber, et al., 4,903,698 disclose a stiffened strap with short, stiff, attachment swivels at each end. Because the sections of this three part strap are each inflexible, the strap has an overall fixed length and poses a problem of pulling an accessory away from the child when the strap is anchored too far or too close to the child.

#### **SUMMARY OF THE INVENTION**

An aspect of some embodiments of the present invention relates to providing a safety tether that connects to an anchor at one end and a child accessory at the other end to keep the accessory in proximity to a child without snugly wrapping around the child's neck, posing entanglement problems. As used herein, snugly wrapping a cord, tether and/or relatively stiffer section refers to applying sufficient pressure to a biologic tissue, for example, a neck, using the cord, tether and/or relatively stiffer section to impair the natural flow of fluid, for example, oxygen or blood.

In an embodiment of the present invention, a safety tether comprises an elongate relatively stiffer section having an elongate relatively flexible section at a first end and an elongate relatively flexible section at a second end. As used herein, a relatively flexible section refers to a section comprising a material that bends under pressure applied by the hand or weight of a child, aged five and under.

In an exemplary embodiment, the relatively stiffer section refers to a section comprising a material that is stiffened so it only bends an insubstantial amount under pressure applied by the hand or weight of a child, aged five and under. An insubstantial amount of bending, as used herein, means an amount of bending that for a specific length of a strap, cord or relatively stiffer section, is insufficient to allow snug wrapping around a neck or other designated biologic tissue. In another exemplary embodiment of the invention, the relatively stiffer section is stiffened to prevent the section from continuously wrapping around a biologic tissue, for example, the neck.

Optionally, the relatively flexible section at the first end comprises at least one connector that connects to an anchor object, for example, a baby carriage. Optionally, the relatively flexible section at the second end comprises at least one connector that connects to an accessory, for example, a baby bottle. In an exemplary embodiment, each relatively flexible section and/or associated connector are of a length that allows it to partially encircle a child's neck or appendage but of a shorter length than would allow it to fully encircle the child's neck or appendage in conjunction with the relatively stiffer section.

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In an embodiment of the present invention, the safety tether comprises a single material or compound, for example, plastic or rubber that has been modified to provide one or more relatively stiffer and one or more relatively flexible sections.

An aspect of some embodiments of the present invention relates to an accessory connector comprising a flexible lasso having two strands, the lasso defining an opening having an adjustable size and a fitting, moveably connected to the strands.

In an exemplary embodiment, the size of the opening in the lasso is adjusted by pulling or pushing the strands toward or away from the fitting. A smaller opening, for example, snugly encircles an accessory, while a larger opening allows the lasso to be removed from the accessory. Optionally, the fitting includes a lock that engages the strands to fix the lasso opening size. In an exemplary embodiment, the opening size can be adjusted by an adult, but not by a child aged five and under.

An aspect of some embodiments of the present invention relates to a storage hook for folding the length of a safety tether, for example, when not being used by the child. In an exemplary embodiment, the hook is adapted to at least partially encircle and thereby connect to a bar, located along the tether at a distance from the hook.

Optionally, the hook and bar are adapted to support the weight of an accessory, for example, a bottle filled with liquid and resist disengagement, for example, due to jarring. Optionally, this support occurs while a portion of the tether is attached to an anchor, for example, a strut on a carriage, thereby allowing upright storage of the bottle, for example, alongside the carriage. In an exemplary embodiment, the connection optionally resists easy release, for example, due to jarring.

An aspect of some embodiments of the present invention relates to providing a tether that allows roaming (roaming tether) comprising an elongate relatively stiffer section having a relatively flexible section at each of its ends. The first relatively flexible end connects to an anchor, for example, an anchor that is inserted into the ground. The second relatively flexible end connects to a child or animal.

In an exemplary embodiment, the roaming tether allows a child and/or pet the freedom to roam around a specific area without becoming entangled in the tether. Optionally, the roaming tether comprises two or more relatively stiffer sections that are moveably connected to each other, for example, with flexible material.

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There is thus provided a tether substantially prevented from snugly encircling an appendage or neck of a child aged five or under, thereby substantially preventing a danger of choking and/or loss of circulation while maintaining an accessory near the child. The tether comprising at least one elongate relatively stiffer section and at least one relatively flexible accessory section extending from the at least one relatively stiffer section, the relatively flexible accessory section being adapted to connect to a child accessory and incapable of snugly encircling a neck or appendage in conjunction with the at least one relatively stiffer section.

Optionally, the at least one accessory section is adapted to connect to at least one of: a C-tab, a hook, a ring, and a section of the accessory and comprises one or more of: a loop, a ring, a hook, a velcro interface, a snap, a pin and a clip.

Optionally, the at least one accessory section removably connects to the accessory. Alternatively or additionally, the at least one accessory section comprises a lasso. Optionally, the lasso includes a stop that interfaces with the lasso to control the size of lasso opening. Optionally, the stop includes a bar that causes a bulge in the strands out of the plane of the lasso.

In an exemplary embodiment, a kit is provided, comprising a tether and including at least one accessory to which the at least one accessory section connects, the at least one accessory comprising at least one of: a baby bottle, a pacifier and a toy. Optionally, the one or more included accessories are formed or imprinted with a child-pleasing likeness. Optionally, the one or more included accessories are unremovably attached to the accessory connector.

In an exemplary embodiment, the kit comprises one or more plates that connect to the one or more accessories. Optionally, the one or more plates are formed or imprinted with a child-pleasing likeness.

In an exemplary embodiment, the at least one relatively stiffer section comprises one or more of: plastic, metal and rubber. Alternatively or additionally, the at least one relatively stiffer section comprises an extension of the at least one accessory extension to which a stiff material has been attached. Optionally, the stiff material comprises one or more of: plastic, metal and rubber and the at least one relatively stiffer section comprises an extension of the at least one accessory extension to which a material stiffener has been added.

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Alternatively or additionally, the at least one relatively stiffer section comprises an extension of the at least one accessory extension which has been thickened to form the at least one relatively stiffer section.

In an exemplary embodiment, the at least one relatively stiffer section comprises an element having at least two undulations. Optionally, at least one of the at least two undulations is spanned by one or more struts and comprises one or more of: plastic, metal and rubber.

In an exemplary embodiment, the tether additionally comprises at least one flexible anchor section, adapted to connect to an anchor, extending from a second end of the elongate relatively stiffer section, the flexible anchor section being of insufficient length to encircle the neck or appendage in conjunction with the at least one relatively stiffer section.

Optionally, the at least one anchor section is adapted to connect to at least one of: a C-tab, hook, a ring, a bar and a structural piece of an anchor. Alternatively or additionally, the at least one anchor section comprises at least one of: a loop, a ring, a hook, a velcro interface, a snap, a pin, a clip and a lasso. Optionally, the tether includes one or more tether-shortening connectors along its length.

In an exemplary embodiment, the at least one anchor section comprises a ground anchor. Alternatively or additionally, the at least one relatively stiffer section comprises two or more elongate relatively stiffer sections moveably attached to one another.

Optionally, one or more of the two or more elongate relatively stiffer sections are curved. Alternatively or additionally, one of the two or more elongate relatively stiffer sections is longer than at least one other elongate relatively stiffer section.

Optionally, the at least one moveable attachment comprise one or more of: a hinge, a swivel and a section of material.

There is thus further provided an accessory connector that connects to a baby accessory, the connector comprising a flexible lasso having two strands, the lasso defining an opening having an adjustable size and a fitting moveably connected to the two strands; wherein moving the strands with respect to the fitting adjusts the opening size.

Optionally, the fitting includes a cross piece adapted to cause a bulge in the two strands out of the plane of the lasso as they pass through the fitting. Alternatively or additionally, the accessory connector comprises a friction surface on at least one of: the lasso, the strands and the fitting.

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Optionally, the fitting includes a lock that engages the strands to fix the lasso opening size. Alternatively or additionally, the fitting comprises a connector adapted to connect to at least one of: a strap, a hook and an accessory.

In an exemplary embodiment, the lasso comprises at least one stop that prevents disengagement of the lasso from the fitting. Optionally, the at least one stop comprises one or more of: a ball, a tab, a child-pleasing shape, and a thickening along the element.

Optionally, the strands comprise at least one stop that prevents disengagement of the strands from the fitting.

There is thus further provided a tether substantially prevented from snugly encircling an appendage or neck of a child aged five or under, thereby substantially preventing a danger of choking and/or loss of circulation while maintaining an accessory near the child. The tether comprising at least one elongate relatively stiffer section having two or more undulations, at least one strut spanning at least one of the undulations and at least one relatively flexible accessory section extending from a first end of the at least one relatively stiffer section, the relatively flexible accessory section being adapted to connect to a child accessory and incapable of snugly encircling a neck or appendage in conjunction with the at least one relatively stiffer section.

In an exemplary embodiment, the at least one relatively flexible accessory section includes an accessory connector comprising a flexible lasso having two strands, the lasso defining an opening having an adjustable size. Optionally, the lasso includes a fitting, moveably connected to the two strands, wherein moving the strands with respect to the fitting adjusts the opening size.

In an exemplary embodiment, the fitting includes a lock that engages the strands to fix the lasso opening size. Optionally, the accessory connector includes a friction surface on a portion of at least one of: the strands, the fitting and the lock.

Alternatively or additionally, the fitting comprises a cross piece adapted to cause a bulge in the strands out of the plane of the lasso, as they pass through the fitting. Optionally, the connection between the lasso and the flexible section comprises at least one of: a loop, a ring, a hook, a snap, a pin, a velcro interface and a clip.

Alternatively or additionally, the lasso further comprises at least one stop that prevents disengagement of the lasso from the fitting. Optionally, the at least one stop comprises one or more of: a ball, a tab, a child-pleasing shape, and a thickening along the element. Optionally,

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the strands comprise at least one stop that prevents disengagement of the strands from the fitting.

In an exemplary embodiment, the tether comprises at least one relatively flexible anchor section, adapted to connect to an anchor, extending from a second end of the elongate relatively stiffer section, the flexible anchor section being of insufficient length to encircle the neck or appendage in conjunction with the at least one relatively stiffer section.

Optionally, the at least one anchor section comprises at least one of: a loop, a ring, a hook, a velcro interface, a snap, a pin, a clip and a lasso. Optionally, the tether further includes at least one bar and at least one tether-shortening hook spaced away from the bar, the at least one hook being adapted to removably connect to the at least one bar.

#### **BRIEF DESCRIPTION OF THE DRAWINGS**

Exemplary non-limiting embodiments of the invention will be described with reference to the following description of embodiments in conjunction with the figures. Identical structures, elements or parts that appear in more than one figure are preferably labeled with a same or similar number in all the figures in which they appear.

- Fig. 1 shows a safety tether connected to a baby bottle, in accordance with an exemplary embodiment of the invention;
- Fig. 2A shows a safety tether connected to an accessory, in accordance with an exemplary embodiment of the invention;
- Fig 2B shows an aerial view of Fig. 2A, in accordance with an exemplary embodiment of the invention;
- Fig. 3 shows a safety tether in a shortened position, in accordance with an exemplary embodiment of the invention;
- Fig. 4 shows a safety tether connected to a pacifier, in accordance with an exemplary embodiment of the invention;
  - Fig. 5 shows a roaming tether anchored to the ground, in accordance with an exemplary embodiment of the invention; and
  - Figs. 6 and 7 show a safety tether in conjunction with a friction-operated lasso and storage hook, in accordance with an exemplary embodiment of the invention.

## **DETAILED DESCRIPTION OF EMBODIMENTS**

Fig. 1 shows an embodiment of a safety tether 100 comprising a relatively stiffer section 120 and relatively flexible sections 122 and 124 that are each of a length that allows

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tether 100 to partially encircle a neck or appendage of a child aged five or under, but incapable of fully encircling and/or snugly encircling said neck or appendage.

Relatively flexible section 124 is optionally connected at a slot 144 to a hook 142 that connects to a baby bottle 110. Relatively flexible section 122 optionally connects to an anchor 138, for example, a strut and/or a structural piece of a baby carriage. Additionally or alternatively, anchor 138 can be a part of a feeding table, bed, child garment, bed clothing, playpen, stroller, high chair or the like. In an exemplary embodiment, safety tether 100 keeps an accessory within reach of a child without endangerment of a neck or appendage becoming snugly encircled by tether 100 to pose a danger of choking and/or loss of circulation.

Safety tether 100 allows, for example, baby bottle 110 to be anchored at a variety of distances away from a child. As shown in Fig. 1, safety tether comprises a relatively stiffer section 120 of length S, a first relatively flexible portion 122 of length N and a second relatively flexible portion 124 of length A. In an exemplary embodiment, lengths A and/or N are of a length that may partially encircle a child's neck and/or limb while shorter than the length necessary to fully encircle a child's neck and/or limb, optionally in conjunction with elongate relatively stiffer section 120.

A baby can hold bottle 110 at a large range of distances from anchor 138 because of relatively flexible sections 122 and/or 124. For example, when a child's lips are located near nipple 180, baby bottle 110 can be conveniently tethered at distance S from the child, plus or minus a distance A and/or plus or minus a distance N. With anchor 138 at distance S, plus or minus distances A and/or N, the child has easy access to bottle 110 substantially without a danger of choking.

Optionally, safety tether 100 can be varied in its construction for use with different aged children. For example, relatively stiffer section 120 and/or relatively flexible section 122 are manufactured in lengths that partially encircle the neck or appendage of an average-sized child four years and under. Alternatively, safety tether 100 can comprise relatively stiffer section 120 and/or relatively flexible section 122 that have lengths that partially encircle the neck or appendage of an average-sized child three years and under. Optionally, one design of safety tether 100 is provided with lengths of sections 120, 122, and/or 124 that are adapted to a child two and under while another design of safety tether 100 is provided for a child one and under.

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Additionally or alternatively, safety tether 100 may be adapted for use in an animal nursery to prevent an animal, for example, a nursing monkey, from becoming entangled in tether 100. In such use, relative stiffness and/or flexibility of one or more sections can be suited to the weight and/or strength of the animal.

Similarly, different embodiments of safety tether 100 can be configured so that one elongate relatively stiffer section 120 of a particular embodiment bends insubstantially under pressure from a child of a specific age and/or weight. In an exemplary embodiment, relatively stiffer section 120 is manufactured of a material and thickness so that it insubstantially bends under the hand pressure and/or weight of a four-year-old child. Alternatively, an embodiment is configured to insubstantially bend under the hand pressure and/or weight of a three-year-old child, a two-year-old child or a one-year-old child.

Alternatively or additionally, some embodiments of safety tether 100 may be manufactured for adult use. For example, in closed care mental homes, safety tether 100 can be manufactured with relatively stiffer section 120 that resists, for example, substantial bending from an adult.

In Fig. 1, anchor loop 130 is shown as being formed with a removable snap 132 that allows anchor loop 130 to be connected and unconnected to anchor 138. In an embodiment of the present invention, hook 142, for example, is connected to a ring 112 that is incorporated into nipple holder 114 of bottle 110.

Hook 142, is just one example of many types of permanent and/or easily releasable connections that are contemplated. In an exemplary embodiment, a connector does not present a danger to a child, for example, by pinching skin or catching a finger. Additionally or alternatively, a connector is provided on either or both relatively flexible sections so that the adjacent relatively flexible section encircles and/or connects to an anchor and/or accessory.

In an exemplary embodiment, a snap is provided on either or both relatively flexible sections so that the relatively flexible section encircles and snaps around an anchor and/or accessory, providing a connection with the safety tether. Alternatively, a hook, buckle or other connector is used in place of the snap.

In an exemplary embodiment, safety tether 100 connects to an accessory connector comprising a bottle tote as described in Patent Application entitled "Bottle Tote", having attorney docket number 324/02152, filed on October 23, 2002, the disclosure of which is incorporated herein by reference.

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In an exemplary embodiment, accessory loop 140 and/or anchor loop 130 are formed using, for example, a snap, hook and loop (velcro) connector, a buckle or any other connector that provides connection to repeatedly form and unform an accessory loop 140 and/or anchor loop 130.

Additionally or alternatively, accessory loop 140 and/or anchor loop 130 are formed with a non-removable connector in place of snap 132 such as stitches, a stud and/or other non-removable loop forming hardware. Factors that determine whether accessory loop 140 and/or anchor loop 130 are to be manufactured as removable or non-removable from an accessory, for example, include the diameter of the intended anchor, age of the child and/or size and/or weight of the accessory.

In an exemplary embodiment, hook 142 is not connected to relatively flexible section 124 through loop 140, rather it is integrated into relatively flexible section 124. For example, relatively flexible section 124 comprises a plastic or rubber material that is manufactured to end in hook 142. Similarly, other connection hardware, for example, a clip, can be integrated as an extension of the material of relatively flexible sections 122 and/or 124 of safety tether 100. Additionally or alternatively, a connector for example, a ring, provides a connection that an adult can readily install and/or remove from an accessory and/or anchor.

In an embodiment of the present invention, loop 140 is attached to a hoop (not shown) that fits under nipple holder 114 and/or a flange 210. Alternatively or additionally, the inside diameter of the hoop is larger than the diameter of bottle 110 under nipple holder 114 and has one or more finger extensions extending toward the center of the hoop that fit under nipple holder 114.

Fig. 2A shows an embodiment of safety tether 100 connected to bottle 110 with an accessory plate 116 that, for example, is an optional accessory included with safety tether 110 in a kit. Accessory plate 116 includes a C-tab 118 to which accessory loop 140 is removably or unremovably connected to bottle 110. Accessory plate 116 is connected to bottle 110, for example, with non-toxic glue, single sticky side tape and/or dual sticky side tape.

Fig 2B shows a top view of an exemplary embodiment of bottle 110 with a removable plate 116. Bottle 110 is manufactured with two grooves 234 and 236 and accessory plate 116 is provided with complimentary rails 238 and 240. Rails 238 and 240 fit into grooves 234 and 236 so that plate 116 with C-tab 118 becomes affixed against bottle 110 between rails 238 and 240 without the use of an adhesive along surface 250. In an exemplary embodiment, accessory

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plate 116 is made of a malleable plastic, for example, so that by pressing the two vertical edges of plate 116 on either side of grooves 234 and 236 toward each other, plate 116 bends so that its center section curves away from bottle 110. With bending of plate 116 in this fashion, rails 238 and 240 disengage from grooves 238 and 240, allowing removal of plate 116 from bottle 110.

In an exemplary embodiment, bottle 110 is manufactured with an incorporated C-tab 118 and, for example, marketed together with safety tether 100 in a kit. Optionally, bottle 110 with incorporated C-tab 118 comprises a special shape or design that is pleasing to a child such as a bear or cartoon character. Optionally, this shape is a cartoon characterization that provides a source of entertainment and/or enjoyment for a child. Additionally or alternatively, this shape is a shape or design that provides child-calming effects. Optionally, bottle 110 with C-tab 118, bottle 110 in a special shape and/or other accessories, for example, a rattle, are sold together with safety tether 100.

Fig. 3 shows safety tether 100 in a shortened position, in accordance with an embodiment of the present invention. Tether 100 includes a ring 150 that is adapted to receive hook 142. When hook 142 is connected to ring 150 that is located along relatively flexible section 122, safety tether 100 forms a loop, thereby shortening for convenient storage with bottle 110. In some embodiments of the invention, anchor loop 130 attaches to an anchor object 138, while hook 142 connects to ring 150 so that bottle 110 hangs in the upright position.

Fig. 4 shows an embodiment of safety tether 400 having anchor loop 130 and accessory loop 140. Loops 130 and 140 comprise a velcro material interface 134 that seals against a velcro hook interface 136.

Accessory loop 140 surrounds pacifier wing 422. As the opening of loop 140 is variable in size, it can encircle a variety of accessories, for example, baby bottle 110 (Fig. 1).

In an exemplary embodiment, a safety pin 420 anchor is surrounded by anchor loop 130. Pin 420, for example, connects to a child clothing item, such as a jacket. Additionally or alternatively, pin 420 connects to sleep paraphernalia such as a blanket, pillow or sheet. Additionally or alternatively, loop 130 connects directly to an anchor structure without use of pin 420.

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The opening inside anchor loop 130 has a variable size due to velcro interfaces 134 and 136. Loop 130, thereby, may be directly fastened to a variety of anchors having different diameters, for example, a bar on a baby crib or strut on a baby carriage.

In alternative embodiments, accessory loop 140 may comprise two or more sets of snaps 132 (Fig. 1) spaced away from each other. Snapping a first snap 132 allows loop 140 to surround an accessory of a larger size, for example, baby bottle 110. Snapping a second snap allows loop 140 to encircle an accessory of a smaller size, for example, pacifier wing 422.

Alternatively or additionally, accessory loop 140 may be connected to a variety of other accessories, for example, play accessories and/or clothing accessories. Play accessories include, for example, a noisemaker such as a rattle or toy and clothing accessories include, for example, a hat or glove that may be, for example, periodically put on or taken off the child.

In an exemplary embodiment, safety tether 400 is made of a relatively stiff strip 160 that has been incorporated in a flexible strip 162. Incorporation of relatively stiff strip 160 into flexible strip 162 may employ any method known in the art, for example, gluing, sewing and/or riveting. Stiff strip 160, for example, comprises a plastic, rubber or metal. Variation in the material and/or level of stiffness comprising stiff strip 160 are, for example, based upon anticipated child age, weight and/or strength and/or its allergy-free qualities.

Alternatively or additionally, relatively stiffer section 120 is manufactured from the same material as relatively flexible sections 122 and/or 124 and the material varied in its thickness and/or altered in some manner to provide stiffness along relatively stiffer section 120. For example, the variation in stiffness along safety tether 400, may be due to: (a) being thick at section 120 and thin at sections 122 and 124 and/or (b) chemical additives and/or fibers incorporated in one or more of sections 120, 122 and/or 124.

In an embodiment of the present invention, most or all of the length of safety tether 400 comprises a plastic, rubber or silicone material 120 that is relatively flexible at ends 122 and 124 and stiffened at section 120. Additionally or alternatively, at least a portion of the plastic, rubber or silicone material is stiffened, for example, along section 120, by embedding it with a different material comprising fibers, a fabric or webbing.

Fig. 6 is a safety tether 600 that has a stiffened section 120 comprising a material having multiple undulations 610 and a stiffening strut 612 extending along a first side of undulations 610, according to an exemplary embodiment of the present invention. Fig. 7 shows an embodiment in which struts 614 span a second side of undulations 610.

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It is desirable to prevent a child from being hurt during play by a non-flexible section 120. Undulations 610 in combination with struts 612 and 614, allow section 120 to have greater flexibility than merely a thickened section 120 so that section 120 bows a bit under the pressure of a child. Additionally, undulation 610 and struts 612 and 614 allow section 120 to twist somewhat around its longitudinal axis. Flexing and bowing in section 120, for example, allow a child to suck on section 120 without causing pain to the tender gums. Alternatively or additionally, undulation 610 are interesting and aesthetically pleasing to a child.

While struts 612 and 614 form a single row along the center of section 120, other arrangements are easily contemplated by those familiar with the art. For example, two struts 612 and 614 in each undulation 610 each near a side edge of section 120. Alternatively or additionally, struts 612 and 614 may be formed into an "x" pattern inside each undulation 610. Alternatively or additionally, some undulations 610 may not have struts 612 or 614, for example, when struts 612 and 614 are applied to every other undulation 610, in a repeating pattern.

In an exemplary embodiment, safety tether 600 flexible sections 122 and 124 comprise a different material and/or structural design than stiff section 120 and are attached to section 120 with links 692 and 694 respectively. Alternatively or additionally, links 692 and/or 694 and flexible sections 122 and 124 comprise a single molded material, for example, plastic.

According to some embodiments of the present invention, flexible accessory section 124 is connected to strands 648 that pass through a fitting 640 to form an adjustable lasso 642 that encircles and secures bottle 110 to tether 600. Optionally, fitting 640 comprises a bar (not shown) over which strands 648 pass, thereby creating a bulge as seen in Fig. 7.

In an exemplary embodiment, fitting 640 further comprises a slide lock 702 that slides to engage strands 648, thereby locking strands 648 so that the size of lasso 642 remains fixed, for example, around the neck of bottle 110. The adjustable size of lasso 642 allows it to encircle a standard baby bottle 110 or a bottle 110 having a non-standard wide neck. Alternatively or additionally, lasso 642 fits around the narrower necks of soda bottles or other bottles having a variety of neck sizes. By sliding lock 702 so it is disengages strands 648, the size of lasso 642 can be adjusted so that it can be removed from around the neck of bottle 110.

Optionally, at least a portion of fitting 640, strands 648 and/or lock 702 have interactive friction surfaces so that even when lock 702 is disengaged from strands 648, lasso 642 enlarges only when sufficient force is applied by an adult. Alternatively or additionally, a

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child aged five and under cannot move lock 702 with respect to fitting 640, thereby preventing child finger-entrapment.

Additional or alternative embodiments of lock 702 and/or fitting 640 may be contemplated by those familiar with the art of fasteners. For example, a ratchet interface (not shown) between lasso 642 and fitting 640 that can be released by an adult but not a child aged five and under.

As seen in Fig. 6, an extension of strands 648 comprises a receptacle 680 that receives a clasp 670 on flexible section 124. In an exemplary embodiment, clasp 670 facilitates connection of flexible section 124 to bottle 110 or to an alternative accessory, for example, a baby pacifier 422 (Fig. 4). In an exemplary embodiment, clasp 670 is connected to section 124 with a swivel ring 672 to allow easy manipulation of pacifier 422 by a child aged five and under.

In Fig. 7, lasso 642 has been retracted toward fitting 640 so that lasso 642 is tightened around bottle 110, for example, under nipple holder 114. In an exemplary embodiment, fitting 640 comprises a trapeze bar 660 that is engaged by hook 662, thereby shortening tether 600 and allowing bottle 110 to be stored in the upright position, as shown. Optionally, hook 662 is connected to flexible section 122 with a link 678.

With lasso 642 tightened around bottle 110 and hook 662 disengaged from bar 660, bottle 110 may be given to the baby to allow the baby to feed without being endangered by loosening of lasso 642 and/or entanglement in safety tether 600. Optionally, when hook 662 is engaged with bar 660, the connection optionally resists easy release, for example, due to jarring.

In an exemplary embodiment, a stop 644 is incorporated along lasso 642 so that when lasso 642 is not encircling a bottle 110, it is prevented from being pulled through fitting 640 and pulling free of fitting 640. Optionally, stop 644 comprises a ball, as shown. Alternatively or additionally, stop 644 comprises a thickening in lasso.

In some embodiments, one or more stops 644 are additionally included near receptacle 680 to prevent receptacle 680 from pulling free of fitting 640. Alternatively or additionally, receptacle 680 comprises thickened material or has an enlarged diameter that prevents it from pulling free of fitting 640. Optionally, stop 644 may have other shapes, for example, a child-pleasing shape such as a cartoon character or a tab displaying a child-pleasing picture.

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In an exemplary embodiment, hook 662 is fixed in position in its extension from link 678. Alternatively hook 662 is adapted to rotate around the axis along its attachment to link 678. Optionally, the connection between hook 662 and link 678 comprises any one of the number of configurations noted above, for example, a swivel connection.

Fig. 5 shows an embodiment of a tether 500 used as a tether for allowing a child and/or animal to safely roam and/or move about without danger of entanglement. Roaming tether 500 has elongate relatively stiffer section 120 optionally divided into two elongate relatively stiffer sections, 120A and 120B, that are connected to each other with a hinge 520.

Divided relatively stiffer section 120, in addition to not posing entanglement problems, allows easy movement of roaming tether 500 over a larger area as relatively stiffer section 120A and 120B weigh less individually than section 120. If section 120, for example, was one longer section, its weight would be constantly supported in the air during movement when attached to a pet and/or child. With section 120 divided into two sections 120A and 120B, only section 120B need be supported in the air while section 120A can drag along ground 514. In an exemplary embodiment, relatively stiffer sections 120A and 120B are, for example, of a length whereby their weight does not substantially impede child and/or animal movement.

Hinge 520 comprises, for example, a rotatable hinge. Additionally or alternatively, hinge 520 can comprise other bendable hardware and/or flexible material. Additionally or alternatively, hinge 520 comprises a swivel hinge, wherein both sections 120A and 120B can swivel along their long axes. Additionally or alternatively, hinge 520 comprises a short relatively flexible section of material. Additionally or alternatively, the materials that comprise roaming tether 500, including relatively stiffer sections 120A and/or 120B, are formed in a similar fashion to relatively stiffer section 120 on safety tether 100.

In an exemplary embodiment, materials and/or hardware contemplated for roaming tether 500 are similar to those detailed for use in safety tether 100.

In an exemplary embodiment, section 120A is curved so that, for example, during movement, a section 522 contacts ground 514 while a section 524 is in the air, rendering roaming tether 500 easier to move due to its reduced friction on ground 514. Additionally or alternatively, relatively stiffer sections 120A and/or 120B include one or more of a variety of shapes that render roaming tether 500 easier to move. Optionally, roaming tether is shaped and/or includes figures and/or pictures that make it more pleasing to a child.

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Additionally or alternatively, relatively stiffer sections 120A and 120B can be three relatively stiffer sections connected by hinges 520. In this fashion, the length of tether 500 can be increased without adding to the overall weight of tether 500 that needs to be lifted during movement. Additionally or alternatively, sections 120A and 120B can be of unequal length.

In an exemplary embodiment, relatively flexible section 124 is, for example, connected with loop 140 to a bracelet 500. Bracelet 500 has a buckle 504 that clasps notches 502 to encircle the wrist and/or ankle of a child. Optionally, bracelet 500 is adapted to encircle the neck of a pet, for example, the neck of a dog. Relatively flexible section 122 ends in a ring 510 that is connected to a ground anchor 512, comprising a stake that is, for example, implanted in a section of ground 514. Ring 510 allows safety tether 120, for example, to rotate 360 degrees around ground anchor 512, providing freedom of movement for the child and/or animal connected at bracelet 500.

In an exemplary embodiment, ring 510 is connected to a strap that, for example, can be worn by an adult on the wrist, while bracelet 500 is attached to a child and/or an animal. With roaming tether 500 connected at one end to a child or animal and at the other end to an adult, the adult can go for a walk and allow the animal or child to move about, without entanglement problems.

The present invention has been described using non-limiting detailed descriptions of embodiments thereof that are provided by way of example and are not intended to limit the scope of the invention. It should be understood that features and/or steps described with respect to one embodiment may be used with other embodiments and that not all embodiments of the invention have all of the features and/or steps shown in a particular figure or described with respect to one of the embodiments. For example, tether hinge 520 in Fig. 5 for a roaming tether may be used for a child bottle tether. Variations of embodiments described will occur to persons of the art. For example, the method of connection can vary, for example, being adhesive based or using other mechanical connection means such as screws or bolts. Furthermore, the terms "comprise," "include," "have" and their conjugates, shall mean, when used in the claims, "including but not necessarily limited to."

It is noted that some of the above described embodiments may describe the best mode contemplated by the inventors and therefore may include structure, acts or details of structures and acts that may not be essential to the invention and which are described as examples. Structure and acts described herein are replaceable by equivalents that perform the same

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function, even if the structure or acts are different, as known in the art. Therefore, the scope of the invention is limited only by the elements and limitations as used in the claims.